

FIG. 1 (PRIOR ART)

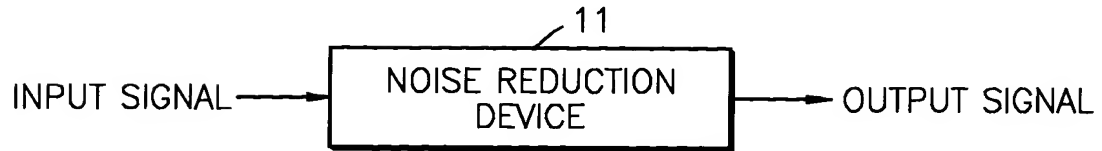


FIG. 2 (PRIOR ART)

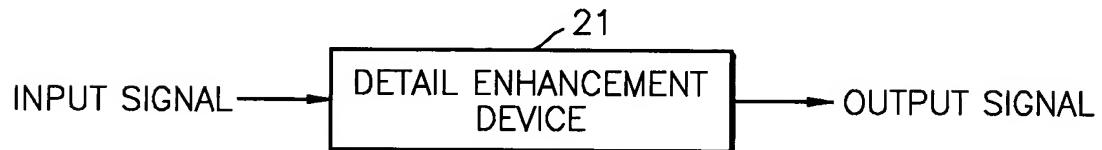


FIG. 3

TYPE OF INPUT IMAGE (WITH RESPECT TO PIXEL FREQ.)	MAX FREQUENCY	SAMPLING FREQ. (NYQUIST FREQ.)
ORIGINAL SD	4.3 Mhz	13.5 Mhz (6.75 Mhz)
DOWN SCALED SD (FROM HD)	IT DEPENDS ON SCALE RATIO OF IMAGE	
ORIGINAL HD	30 Mhz	74.25 Mhz (37.125 Mhz)
UP SCALED HD (FROM SD)	IT DEPENDS ON SCALE RATIO OF IMAGE	

FIG. 4 (PRIOR ART)

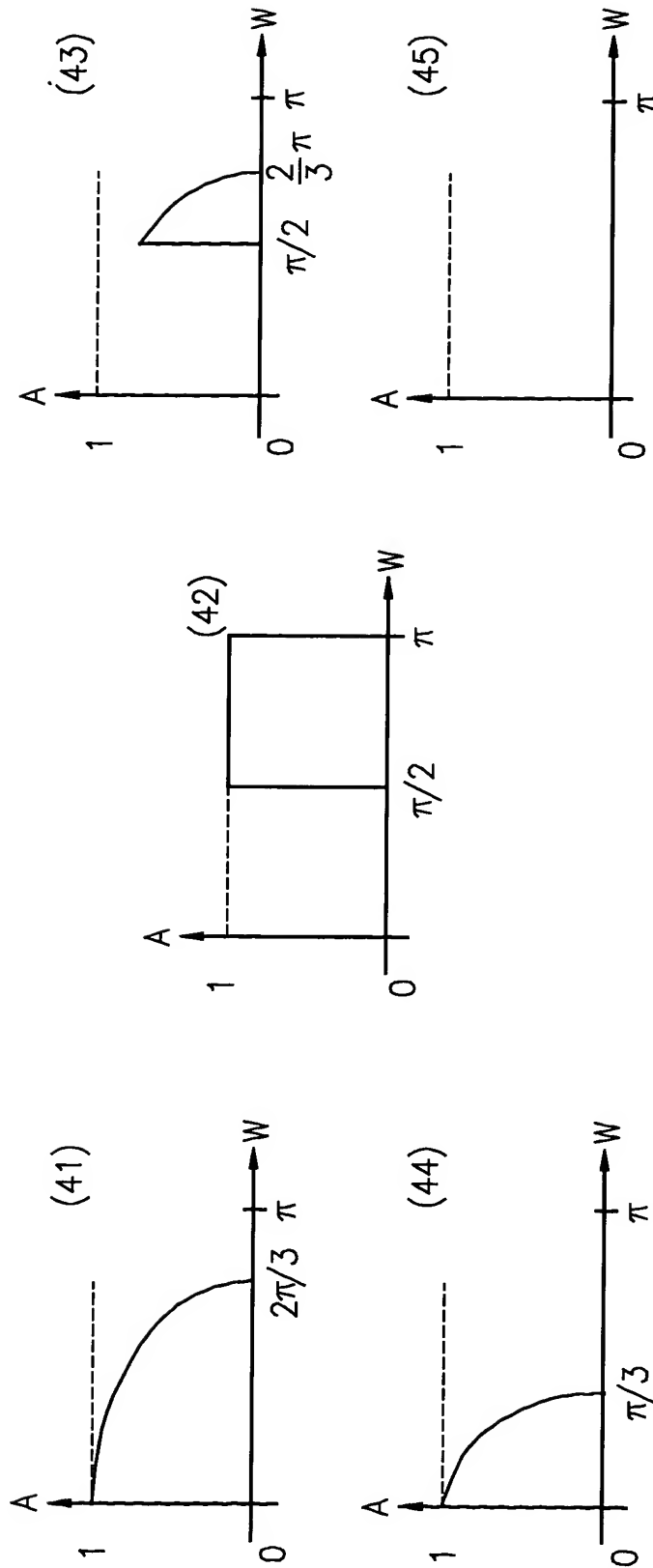


FIG. 5

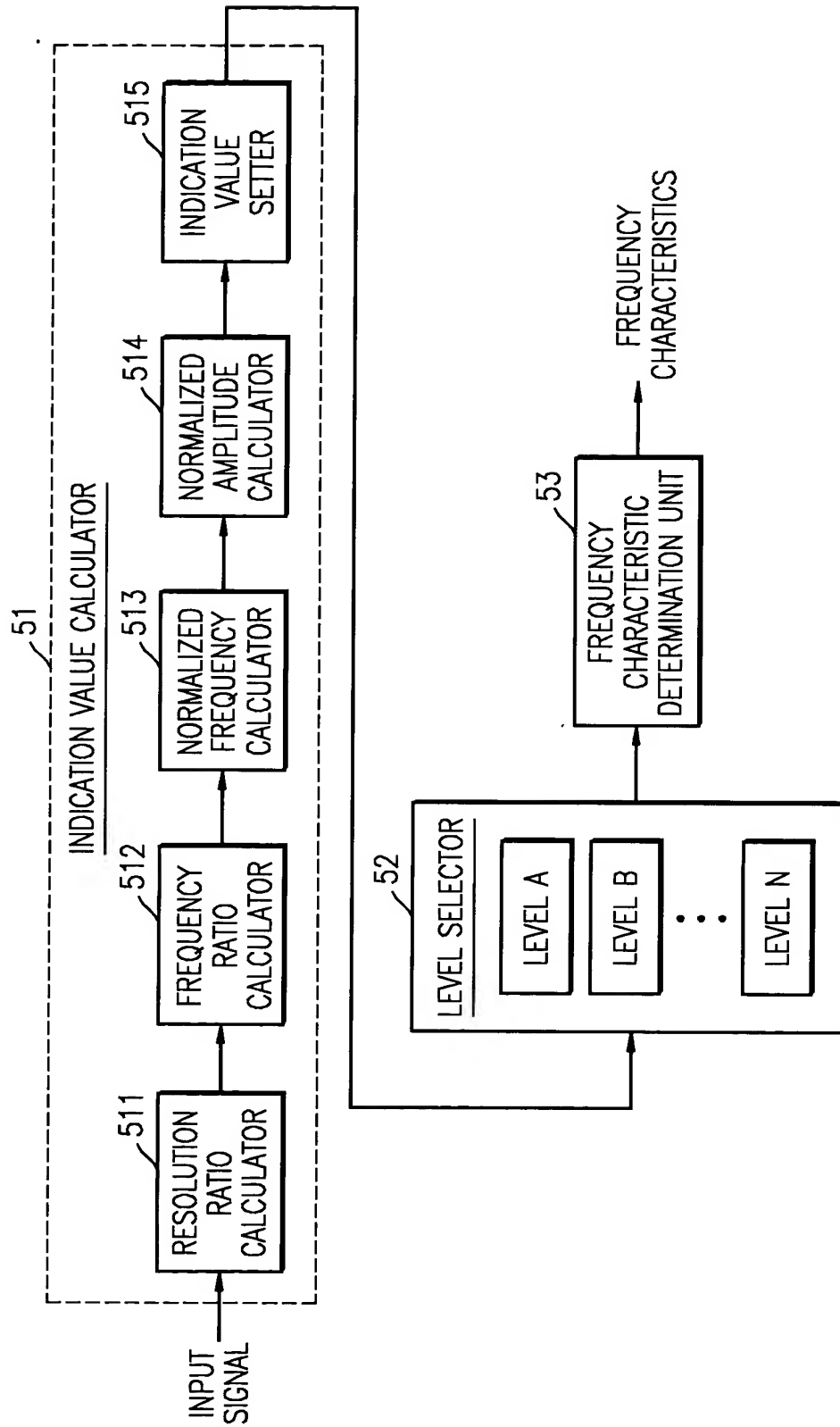


FIG. 6

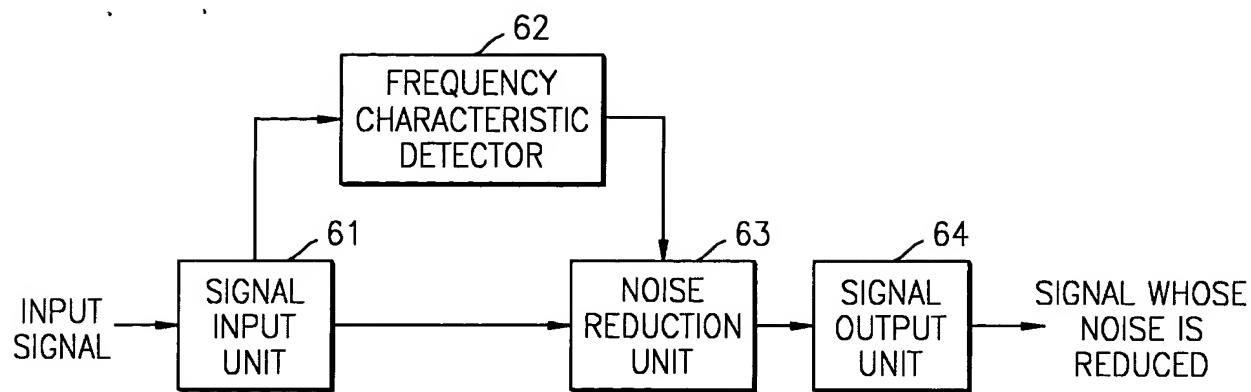


FIG. 7

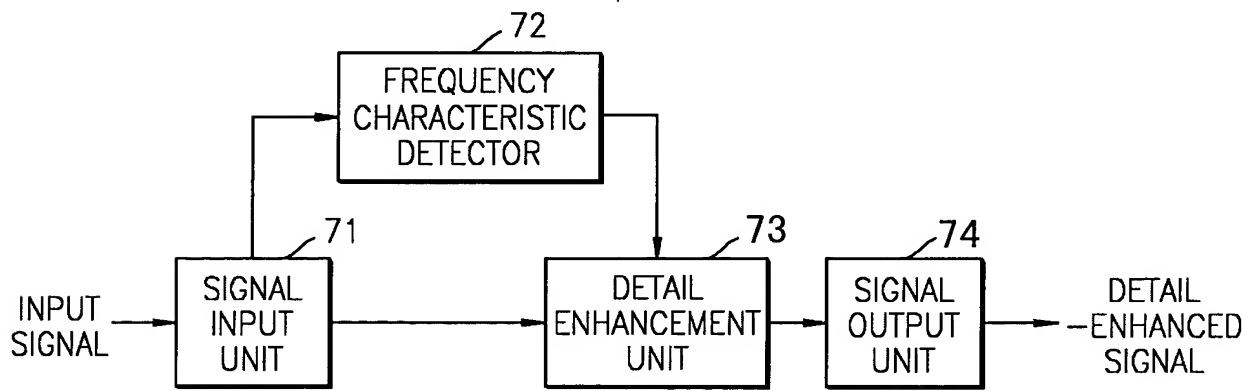


FIG. 8

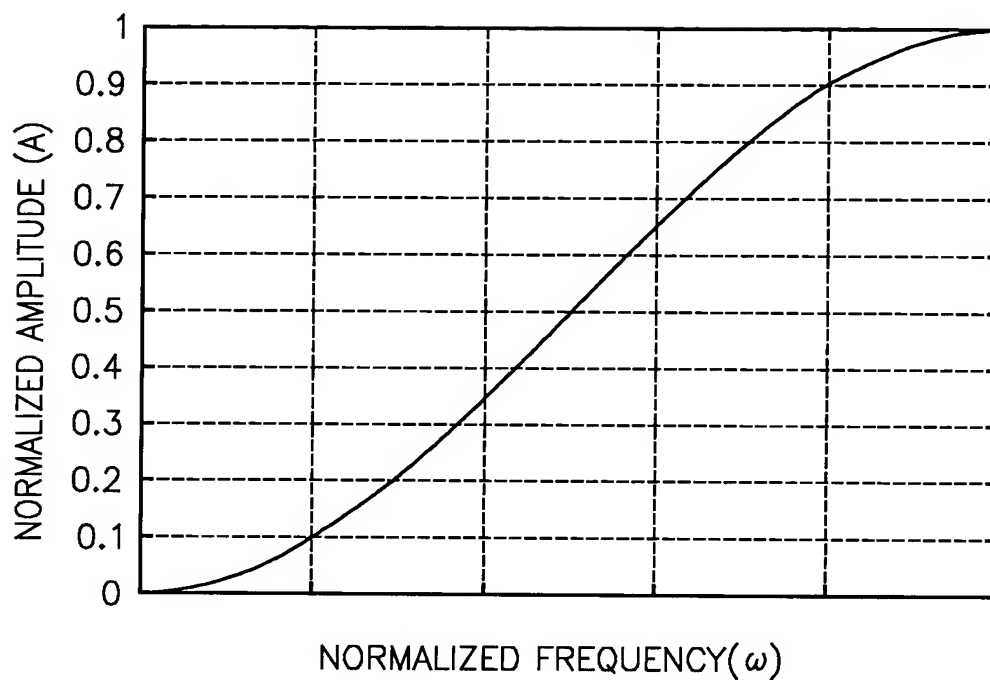


FIG. 9

UP-SCALED INPUT IMAGE	NORMALIZED MAXIMUM FREQUENCY	IF AN INPUT IMAGE HAS A RANGE BETWEEN 0 AND 255 INDICATION VALUE=> ABS(-128~127)=(0~128)
720 x 480=>1280 x 720	$(4.3/6.75) \times (720/1280)=0.36$	37 under
720 x 480=>1920x 720	$(4.3/6.75) \times (720/1920)=0.24$	18 under
1280 x 720=>1920 x 1080	$(30/37.125) \times (1280/1920)=0.54$	71 under

FIG. 10

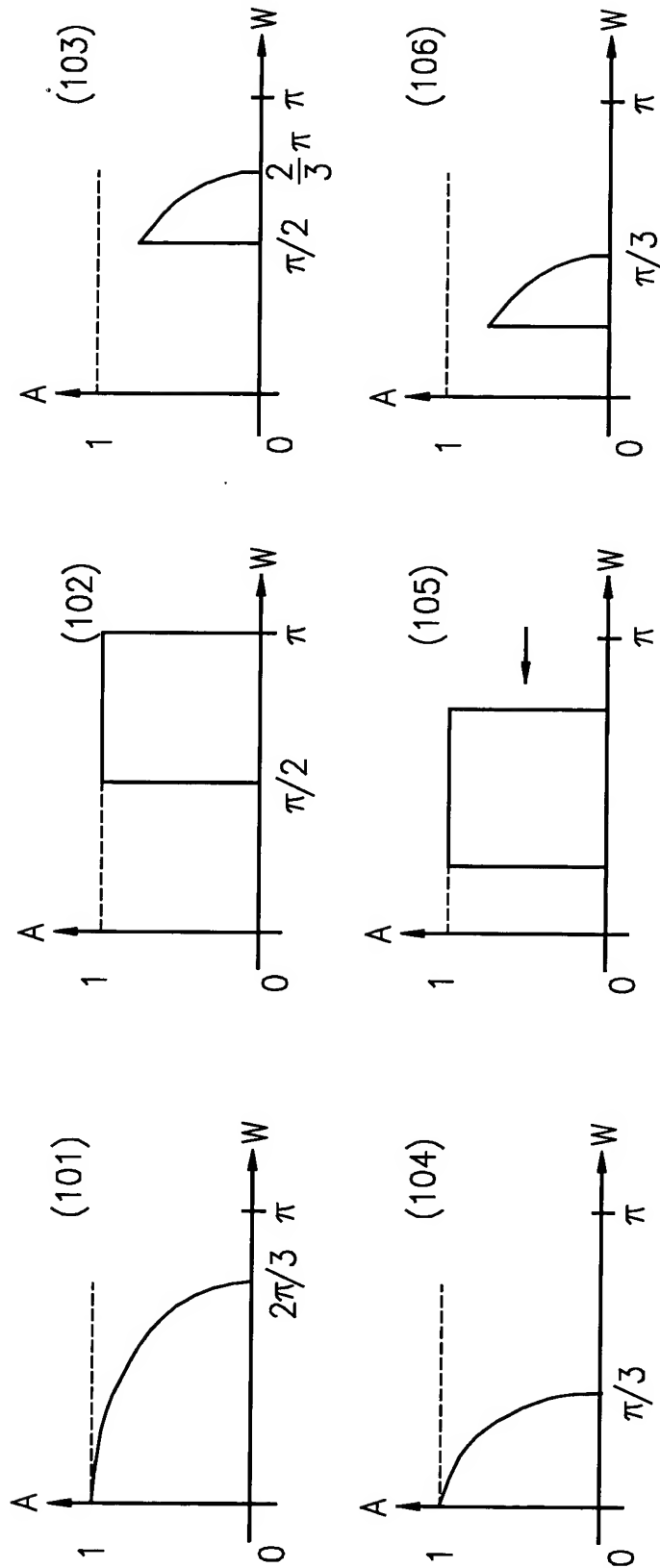


FIG. 11

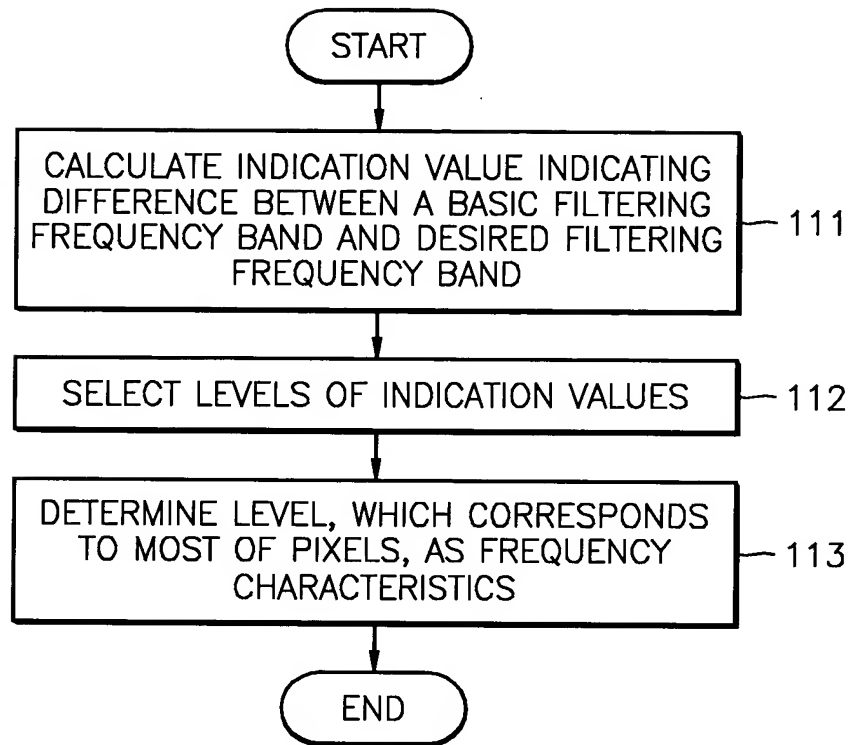


FIG. 12

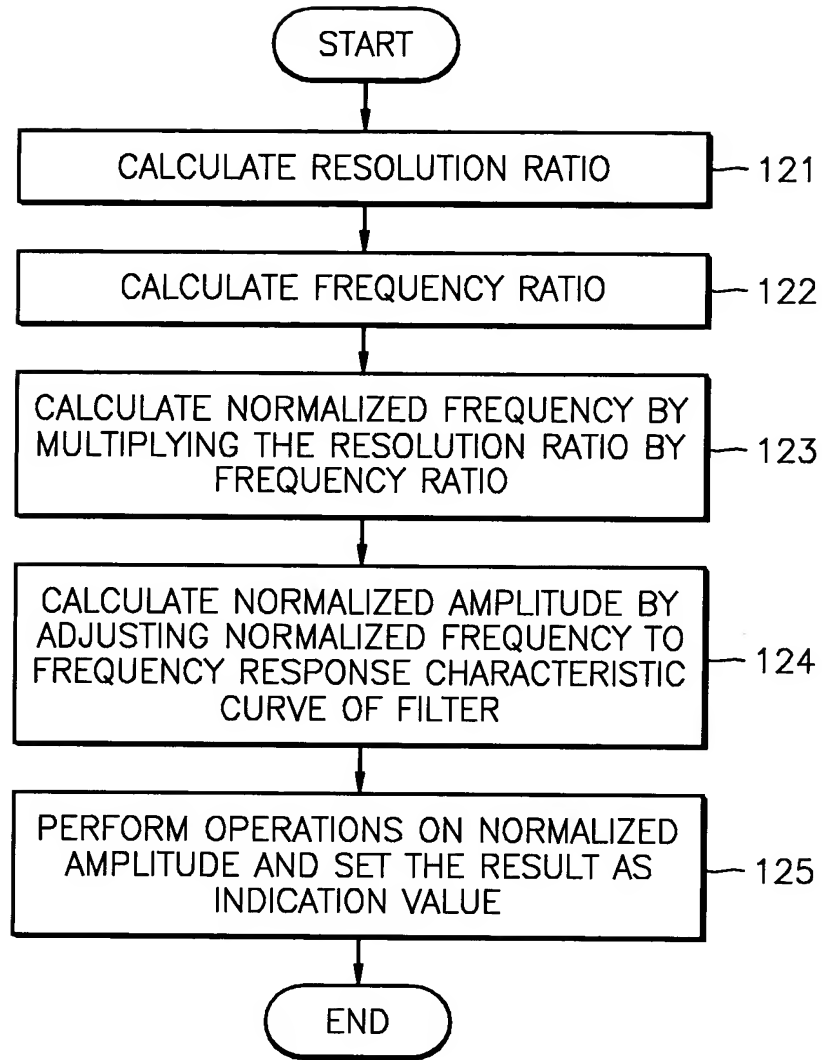


FIG. 13

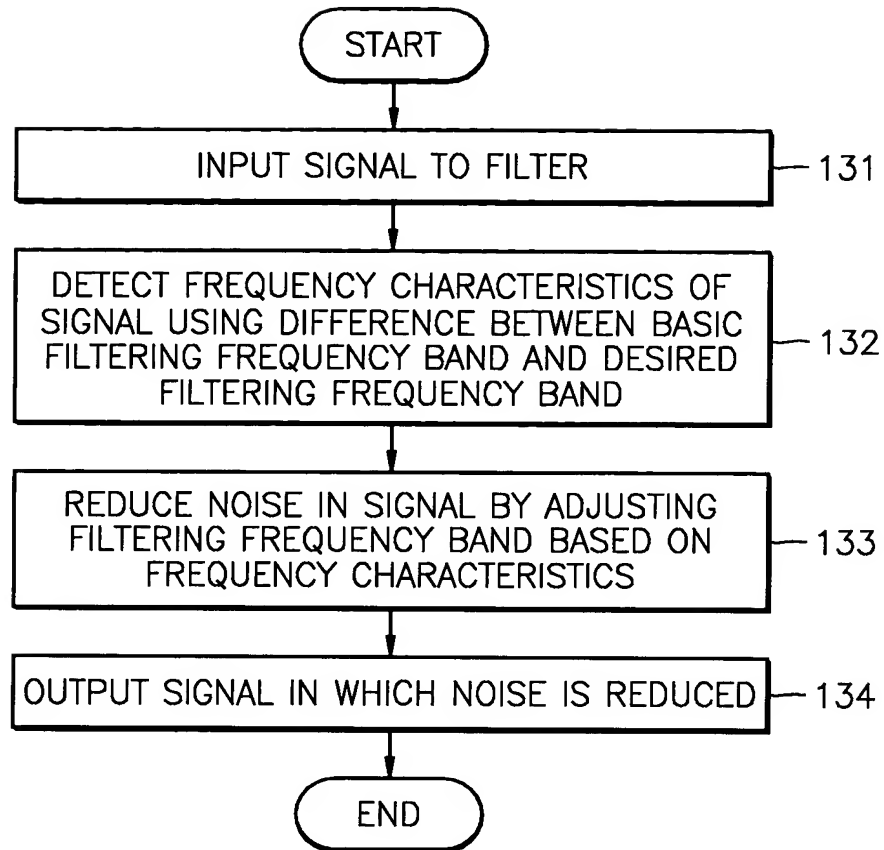


FIG. 14

